CLAIMS

What is claimed is:

1. A portable, temperature-controlled container for storing and transporting temperature-sensitive materials, comprising:

a container having a bottom wall, four side walls, and a top wall defining a cargo space;

a electrical temperature regulating unit connected to the container, the temperature regulating unit comprising a refrigeration and heating unit, the temperature regulating unit being in communication with the cargo space of the container;

a temperature controller connected to the container, the temperature controller comprising a temperature control unit and a temperature sensor positioned in the cargo space of the container; and

a power supply.

2. The portable, temperature-controlled container of claim 1, wherein the walls comprise insulated vacuum panels.

3. The portable, temperature-controlled container of claim 1, wherein the insulated vacuum panels have an R value per inch of at least about 20.

4. The portable, temperature-controlled container of claim 1, wherein the power supply is an AC source.

5. The portable, temperature-controlled container of claim 4, wherein the AC source is external to the cargo space.

6. The portable, temperature-controlled container of claim 1, wherein the power supply is a DC source.

7. The portable, temperature-controlled container of claim 6, wherein the DC source is external to the cargo space.

8. The portable, temperature-controlled container of claim 1, further comprising an AC to DC converter.

9. The portable, temperature-controlled container of claim 1, wherein the temperature regulating unit further comprises a fan.

10. The portable, temperature-controlled container of claim 1, wherein the refrigeration unit is a vapor compression refrigeration unit.

11. The portable, temperature-controlled container of claim 10, wherein the vapor compression unit comprises a DC powered rotary compressor.

12. The portable, temperature-controlled container of claim 1, wherein the refrigeration unit includes a fin heat exchanger having coils filled with a thermal storage phase change material.

13. The portable, temperature-controlled container of claim 1, further comprising a computer port for downloading information to a computer.

14. The portable, temperature-controlled container of claim 1, wherein the computer port is selected from an infrared computer port, and a USB port.

15. The portable, temperature-controlled container of claim 1, further comprising a global positioning satellite receiver.

16. The portable, temperature controlled container of claim 1, further comprising a wireless telephone and modem.

17. The portable, temperature-controlled container of claim 1, wherein at least one side may be opened for access to the cargo space.

18. The portable, temperature-controlled container of claim 1, wherein the top is removable.

19. The portable, temperature-controlled container of claim 1, wherein at least four feet project downward from the bottom of the container, the feet defining an opening therebetween so that the forks of a forklift may be inserted into the opening.

20. The portable, temperature-controlled container of claim 1, wherein the container is collapsible wherein the four side walls fold over the bottom wall.

21. The portable, temperature-controlled container of claim 1, wherein the cargo space is at least 30 cubic feet.

22. A portable, temperature-controlled container for storing and transporting temperature-sensitive materials, comprising:

a container having cargo space defined by a bottom wall, four side walls, and a top wall, the container also having a compartment separate and insulated from the cargo space and being separated by one of said four side walls;

an electrical temperature regulating unit connected to the container and which is in communication with the cargo space of the container, the temperature regulating unit comprising a refrigeration assembly, the temperature regulating unit comprising an electric compressor and a condenser positioned within the compartment, and a refrigeration coil located within the cargo space that is in fluid communication with the compressor and condenser for the air within the cargo space;

a temperature controller connected to the container, the temperature controller comprising a temperature control unit and a temperature sensor positioned in the cargo space of the container; and

a power supply.

23. The portable, temperature-controlled container of claim 22, wherein the temperature regulating unit further comprises a fan located within the cargo space for circulating air over the refrigeration coil.

24. The portable, temperature-controlled container of claim 22, wherein the temperature regulating unit further comprises a heating unit comprising an electric heating coil having located within the cargo space and is in electrical communication with the power supply.

25. The portable, temperature-controlled container of claim 24, wherein the temperature regulating unit further comprises a fan located within the cargo space for circulating air over the refrigeration coil and the heating coil.

26. The portable, temperature-controlled container of claim 25, wherein the temperature control unit controls the electrical current between the electrical compressor and the electric heating coil for selectively heating or cooling the interior of the cargo space.

27. The portable, temperature-controlled container of claim 25, wherein insulation panels positioned adjacent the bottom wall and the side wall separating the compartment from the cargo space define an annulus, the annulus being in fluid communication with the cargo through an at least a pair of openings; and

wherein the fan, the refrigeration coil, and the heating coil are positioned in the annulus between the openings so that the fan draws air from the cargo space through one of the openings over the heating and refrigeration coils and then blows the air into the into the cargo space through the other opening.

28. The portable, temperature-controlled container of claim 22, further comprising a plurality of legs extending from the bottom wall that define a space adapted to receive a set of tines of a forklift.

29. The portable, temperature-controlled container of claim 22, further comprising a plurality of spacer supports extending from the top wall defining a space above the top wall for receiving

a set of tines of a forklift when another container is placed on top of the portable, temperature controlled container.